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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/628,319 | 07/28/2003 | Patrick A. Leonhardt | 33-944 | 4434 |
| 7590 | 06/02/2004 | | EXAMINER | |
| Andrew D. Stover BRINKS HOFER GILSON & LIONE P.O. Box 10395 CHICAGO, IL 60610 | | | ADDIE, RAYMOND W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3671 | |

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/628,319 | LEONHARDT ET AL. |
| | Examiner | Art Unit |
| | Raymond W. Addie | 3671 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08 April 2004.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 20-45 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 20,22-25,28-30,32-36,39 and 42-44 is/are rejected.

7) Claim(s) 21,26,27,31,37,38,40,41 and 45 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 08 April 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____. 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____. |
|--|--|

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Page 3, ln. 16; the phrase "mounting arrangementAs shown"; should be --mounting arrangement, as shown--.

Appropriate correction is required.

Information Disclosure Statement

2. The information disclosure statement filed 4/8/2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the form PTO-1449 has not been used and the listing of references does not provide a opportunity for the Examiner to initial each reference cited, as being considered; nor is a place provided at the bottom of each page for the Examiner to sign and date the IDS sheets. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609
¶ C(1).

Claim Objections

3. Claims 32-35, 39, 42, 43 are objected to because of the following informalities:

In claims 32-35, 43 the phrase "is greater than about" should be either --is greater than-- ; or --is about--. Since the lower end of the range "is greater than about" is unclear.

Claim 39, ln. 16, the phrase "vehicle mounted attenuator" should be - -vehicle mounted crash attenuator" in order to be consistent with the feature claimed in ln. 3.

Claim 39 Ins. 14-16 recite "wherein said second bay is rotated relative to said 1st bay through a rotation angle of greater than 90⁰ relative to said substantially horizontal orientation when said vehicle mounted attenuator is in said retracted configuration".

It is unclear as to which substantially horizontal orientation is being referred to, since both 1st and 2nd bays are provided with "substantially horizontal orientations".

Therefore, the above cited reference is interpreted to require the second bay to be rotated through an angle greater than 90 degrees relative to the 1st bay and relative to the substantially horizontal orientation of the second bay. Since it is the 2nd bay that is claimed to do the rotation and not the entire (VMCA) nor the 1st bay of the (VMCA)

Claim 42, Ins. 2-3, the phrase "as said vehicle mounted crash attenuator is moved" should be removed, since the recitation provides for the 2nd to move as another feature, a (VMCA) is moving, and in fact the only component of the (VMCA) that is moving is the 2nd bay. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claim 28 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "When the second bay 18 is rotated about the axis 42 by 90⁰ (as shown in solid lines in Figure 10), the partially-retracted attenuator has a height h. Further rotation has the effect of lifting the lower edge 28 until the lower edge 28 crosses the plane 72, after which the lower edge 28 begins to move downwardly. Once the rotation of the second bay 18 has gone beyond the position shown in dotted lines in Figure 10, the height of the lower edge 28 (and therefore the overall height of the attenuator 10) becomes less than h. ...to ensure that the overall height of the fully retracted attenuator 10 is less than that of an attenuator in which the second bay 18 is rotated by 90⁰", does not reasonably provide enablement for "said back end of said second bay comprises a lower edge, wherein said lower edge is positioned at a height h when said second bay is rotated relative to said first bay by a rotation angle of about 90⁰, and wherein said rotation angle is selected such that in the retracted position said lower edge is positioned at a height no greater than h". The specification does not enable any person skilled in the art to

which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The claim language clearly recites "wherein said lower edge is positioned at a height h when said second bay is rotated". It is unclear as, to or from, which position the attenuator is being rotated 90 degrees; thus confusing from or to what point in space " h " is measured to or from. Further if the second bay is rotated by 90 degrees what angle of rotation is being claimed that is different from the 90 degree rotation previously cited in the claim?

Therefore, claim 28 is seen to require "wherein the lower edge is positioned at a height h when said second bay is rotated relative to said 1st bay by a rotation angle of about 90 degrees. And wherein the rotation angle is selectable, such that when the second bay (18) is in a retracted position, said lower edge is positioned at a height no greater than h , when the 1st bay is in a substantially horizontal orientation as said second bay is rotated between a deployed position and a 1st retracted position".

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In line 4, the phrase "the rotation angle is sufficiently greater than 90° such that when said second bay is in the retracted position, the lower edge is positioned on the same side of the plane". The sufficiently greater than 90° is indefinite

because one of ordinary skill would not understand the scope of what would be considered sufficiently greater than 90⁰. Would 91⁰ or 165⁰ be sufficiently greater than 90⁰?

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20, 22-25, 28-30, 32-36, 39, 42-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Gertz # 6,581,992.

Gertz discloses a vehicle mounted crash attenuator (TMA), (10/110) comprising:

A collapsible 1st bay (16/116) having a front end adapted for mounting to a vehicle and a back end spaced from said front end, wherein said 1st bay has a substantially horizontal orientation.

A collapsible 2nd bay (18/118) having front and back ends, wherein the front end of the 2nd bay is pivotable relative to said 1st bay between a deployed position.

Wherein said 2nd bay has a substantially horizontal orientation and a retracted position, such that the 2nd bay is rotated relative to said 1st bay through a rotation angle of greater than 90⁰ and up to approximately 180⁰ relative to the deployed position. See col. 3; Figs. 1, 2.

In regards to Claims 23-25 Gertz discloses the 1st and 2nd bays (16/116, 18/118) comprise 1st and 2nd frame structures (30, 32) respectively. See Col. 3, ln. 59-col. 4, ln. 33. Gertz further discloses the use of energy absorbing elements (236, 238, 240, 242) as well as the use of an actuator (61) coupled to said 2nd bay for the intended use of moving the 2nd bay between the deployed and retracted positions. See col. 4, lns. 50-65; col. 8, lns. 19-36.

In regards to Claims 28-30 Gertz discloses the second bay comprises a lower edge, wherein the lower edge is positioned at a height h when said second bay is rotated about an axis (54) relative to said 1st bay by a rotation angle of about 90 degrees. See Fig. 17. And wherein the rotation angle is selectable, such that when the second bay (18) is in a retracted position, said lower edge is positioned at a height no greater than h, when the 1st bay is in a substantially horizontal orientation as said second bay is rotated between a deployed and a 1st retracted position, see Fig. 2; col. 4, lns. 50-65.

In regards to Claims 32-35 Gertz discloses the second bay (118) can be rotated between a deployed position and a retracted position, such that the angle of rotation is greater than about 180 degrees relative to the deployed position. See Figs. 1, 2, 17.

In regards to Claim 36 Gertz discloses the 1st bay is rotational about a horizontal axis of a mounting arrangement (220, 222) secured to said front end of said 1st bay and a vehicle.

In regards to Claims 39, 43, 44 Gertz discloses a vehicle (144) having a TMA/VMCA (truck mounted attenuator/vehicle mounted crash attenuator,110). Said TMA being mounted to a rear end of said vehicle, via a mounting arrangement (220, 222). Wherein said mounting arrangement accommodates rotation of said 1st bay relative to said rear end of said vehicle about a substantially horizontal axis adjacent said front end of said 1st bay. Gertz further discloses the 1st bay has a top and a bottom and a substantially horizontal orientation, wherein said bottom is spaced above the roadway when said vehicle mounted crash attenuator is in said retracted and deployed configurations, as illustrated in figs. 1, 2.

Allowable Subject Matter

7. Claims 21, 26, 27, 31, 37, 38, 40, 41, 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Leonhardt et al. # 6,092,959 discloses a VMCA. Gottwald et al. # 4,658,941 discloses a VMCA. Gertz # 5,199,755 discloses a VMCA.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond W. Addie whose telephone number is 703 305-0135. The examiner can normally be reached on 8-2, 6-8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703 308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Raymond Addie
Patent Examiner
Group 3600

5/26/2004